

### ABSTRACT OF THE DISCLOSURE

Disclosed herein are a method and system for compensating chromatic dispersion. The method includes the steps of generating WDM signal light by wavelength division multiplexing a plurality of optical signals having different wavelengths, transmitting the WDM signal light by an optical fiber transmission line, and receiving the WDM signal light transmitted by the optical fiber transmission line. The receiving step includes the steps of detecting chromatic dispersion related to at least one of the plural optical signals, and providing a variable dispersion compensator whose chromatic dispersion and dispersion slope are controlled so that the detected chromatic dispersion is reduced. According to this method, waveform degradation due to dispersion can be compensated with high accuracy in consideration of dispersion and dispersion slope.